



**Main switch, 3 pole + 1 N/O + 1 N/C, 25 A, STOP function, Lockable in the 0 (Off) position, surface mounting**

**Part no.** P1-25/I2/SVB-SW/HI11  
**Catalog No.** 207295

## Technical data

### General

Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Enclosed		°C	-25 - +40
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Mechanical shock resistance		g	15
Mounting position			As required

### Contacts

Mechanical variables			
Number of poles			3 pole
Auxiliary contacts			
		N/O	1
		N/C	1
Electrical characteristics			
Rated operational voltage	$U_e$	V AC	690
Rated uninterrupted current	$I_u$	A	25
Note on rated uninterrupted current $I_u$			Rated uninterrupted current $I_u$ is specified for max. cross-section.
Load rating with intermittent operation, class 12			
AB 25 % DF		x $I_e$	2
AB 40 % DF		x $I_e$	1.6
AB 60 % DF		x $I_e$	1.3
Short-circuit rating			
Fuse		A gG/gL	25
Rated short-time withstand current (1 s current)	$I_{cw}$	$A_{rms}$	640
Note on rated short-time withstand current $I_{cw}$			Current for a time of 1 second
Rated conditional short-circuit current	$I_q$	kA	50

### Switching capacity

$\cos \varphi$ rated making capacity as per IEC 60947-3		A	240
Rated breaking capacity $\cos \varphi$ to IEC 60947-3		A	
230 V		A	190
400/415 V		A	150
500 V		A	170
690 V		A	150
Safe isolation to EN 61140			
between the contacts		V AC	440
Current heat loss per contact at $I_e$		W	1.1
Current heat loss per auxiliary circuit at $I_e$ (AC-15/230 V)		CO	0.2
Lifespan, mechanical	Operations	x $10^6$	> 0.3
Maximum operating frequency	Operations/h		1200
AC			
AC-3			
Rating, motor load switch	P	kW	

220 V 230 V	P	kW	5.5
400 V 415 V	P	kW	7.5
500 V	P	kW	7.5
690 V	P	kW	7.5
Rated operational current motor load switch			
230 V	I <sub>e</sub>	A	19.6
400V 415 V	I <sub>e</sub>	A	15.2
500 V	I <sub>e</sub>	A	12.1
690 V	I <sub>e</sub>	A	8.8
AC-21A			
Rated operational current switch			
440 V	I <sub>e</sub>	A	25
AC-23A			
Motor rating AC-23A, 50 - 60 Hz			
230 V	P	kW	5.5
400 V 415 V	P	kW	11
500 V	P	kW	11
690 V	P	kW	11
Rated operational current motor load switch			
230 V	I <sub>e</sub>	A	25
400 V 415 V	I <sub>e</sub>	A	25
500 V	I <sub>e</sub>	A	17.4
690 V	I <sub>e</sub>	A	12.6
DC			
DC-1, Load-break switches L/R = 1 ms			
Rated operational current	I <sub>e</sub>	A	25
Voltage per contact pair in series		V	60
DC-23A, motor load switch L/R = 15 ms			
24 V			
Rated operational current	I <sub>e</sub>	A	25
Contacts		Quantity	1
48 V			
Rated operational current	I <sub>e</sub>	A	25
Contacts		Quantity	2
60 V			
Rated operational current	I <sub>e</sub>	A	25
Contacts		Quantity	2
120 V			
Rated operational current	I <sub>e</sub>	A	12
Contacts		Quantity	3
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H <sub>F</sub>	< 10 <sup>-5</sup> , < 1 fault in 100000 operations

### Terminal capacities

Solid or stranded		mm <sup>2</sup>	1 x (1,5 - 6) 2 x (1,5 - 6)
Flexible with ferrules to DIN 46228		mm <sup>2</sup>	1 x (1 - 4) 2 x (1 - 4)
Terminal screw			M4
Tightening torque for terminal screw		Nm	1.6

### Technical safety parameters:

<b>Notes</b>			B10 <sub>d</sub> values as per EN ISO 13849-1, table C1
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### Rating data for approved types

Terminal capacity			
Terminal screw			M4
Tightening torque		lb-in	14.128

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	25
Heat dissipation per pole, current-dependent	$P_{vid}$	W	1.1
Equipment heat dissipation, current-dependent	$P_{vid}$	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			
			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			
			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			
			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			
			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			
			UV resistance only in connection with protective shield.
10.2.5 Lifting			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			
			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			
			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			
			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			
			Meets the product standard's requirements.
10.5 Protection against electric shock			
			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			
			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			
			Is the panel builder's responsibility.
10.8 Connections for external conductors			
			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			
			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			
			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			
			Is the panel builder's responsibility.
10.10 Temperature rise			
			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			
			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			
			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			
			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 6.0

Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ec@ss8.1-27-37-14-03 [AKF060010])			
Version as main switch			Yes
Version as maintenance-/service switch			Yes
Version as safety switch			No
Version as emergency stop installation			No
Version as reversing switch			No
Max. rated operation voltage $U_e$ AC		V	690
Rated operating voltage		V	690 - 690
Rated permanent current $I_u$		A	25
Rated permanent current at AC-21, 400 V		A	25
Rated operation power at AC-3, 400 V		kW	7.5
Rated short-time withstand current $I_{cw}$		kA	0.64
Rated operation power at AC-23, 400 V		kW	13
Switching power at 400 V		kW	13
Conditioned rated short-circuit current $I_q$		kA	80

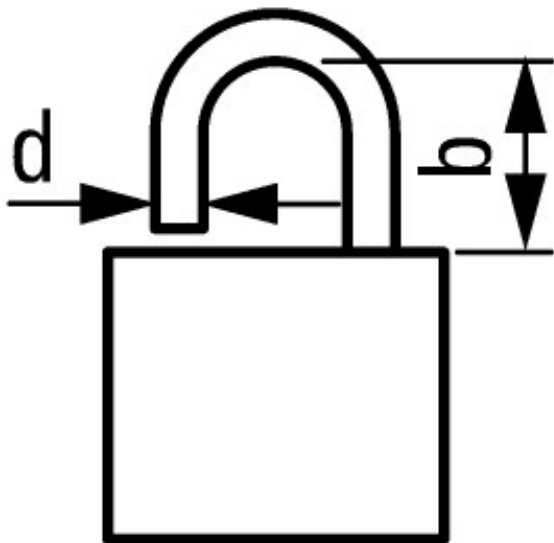
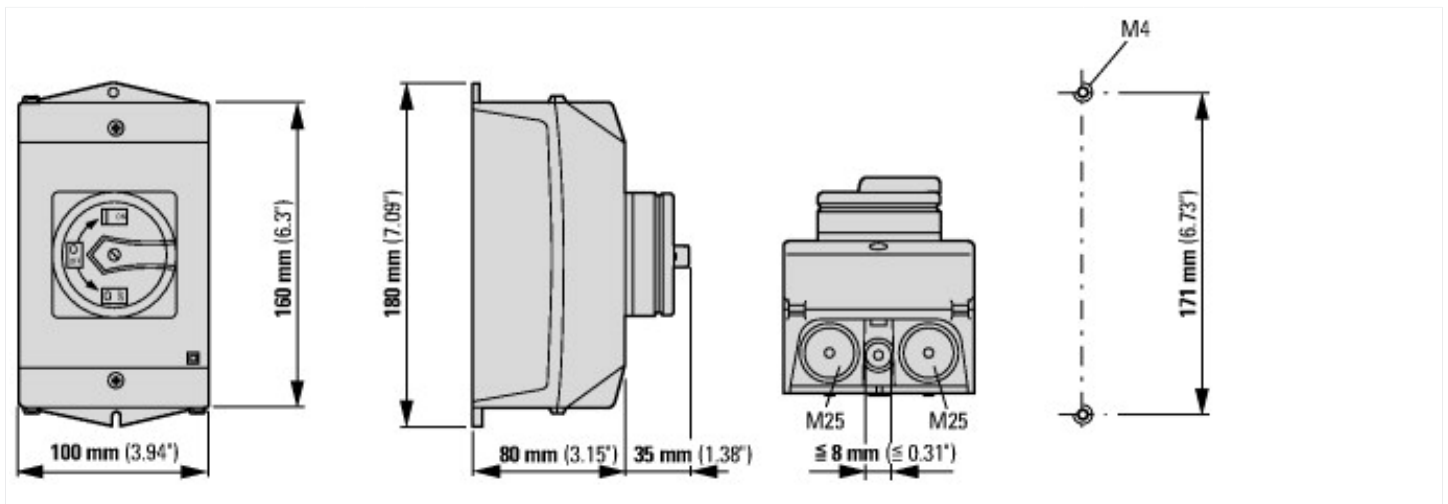
Number of poles	3
Number of auxiliary contacts as normally closed contact	1
Number of auxiliary contacts as normally open contact	1
Number of auxiliary contacts as change-over contact	0
Motor drive optional	No
Motor drive integrated	No
Voltage release optional	No
Device construction	Complete device in housing
Suitable for ground mounting	Yes
Suitable for front mounting 4-hole	No
Suitable for front mounting center	No
Suitable for distribution board installation	No
Suitable for intermediate mounting	No
Colour control element	Black
Type of control element	Door coupling rotary drive
Interlockable	Yes
Type of electrical connection of main circuit	Screw connection
Degree of protection (IP), front side	IP65

## Approvals

North America Certification

For UL/CSA certification order article number 255889

## Dimensions



$$d = 4 - 8 \text{ mm}$$

$$b + d \cong 47 \text{ mm}$$

$$d = 0.16 - 0.31''$$

$$b + d \cong 1.85''$$

$\cong 3$  padlocks